

**Category #6:**

The VOC (volatile organic compound) levels should be changed in the Guidelines.

**State Response:**

In 1992, NYSDEC adopted regulations (6 NYCRR Part 235) to limit VOC content in consumer products. The limits had been developed by the California Air Resources Board (CARB) and remain the same as the limits in California regulations (17 CAA 94509). In New York, those standards were adopted in coordination with the Ozone Transport Commission to address atmospheric air quality and to attain the ozone standard throughout New York and the entire northeast. 6 NYCRR 235 regulates the percentage by weight of VOCs as follows:

- 0.1% for dilutable non-aerosol carpet and upholstery cleaners
- 5% for non-aerosol bathroom cleaners
- 4% for non-aerosol general purpose and glass cleaners

The OGS Guidelines from the Green Seal standard (GS-37) will remain as proposed for VOC limits in cleaning products, i.e. the percentage by weight of VOCs must not exceed the following:

- 0.1% by weight for carpet cleaners
- 1% by weight for bathroom, general purpose and hand cleaners
- 3% by weight for glass cleaners

These limits are achievable, as almost 400 different products have been certified to meet them. They were selected to further reduce the health and environmental impact of cleaning product use. VOCs in cleaners evaporate during use. Some VOCs react with sunlight and other atmospheric constituents to form smog and ozone. VOCs also contribute to poor indoor air quality and their presence can increase the risk of various health effects. Keeping VOC levels as low as feasible in cleaning products will help reduce exposure and any concomitant health risks.

To set the VOC limit for all products at 0.05% would severely restrict the selection of cleaning products, particularly in some categories such as glass cleaners. However, OGS will support a review and revision of these criteria to see if VOC content, particularly those more likely to affect health and the environment, can be further restricted while still allowing for reasonable variety and innovation in the market.

The Greenguard Environmental Institute guidelines for low VOC emissions and allergen removal will not be used because OGS is unable to find a clear set of test methodologies and protocols that could be appropriately applied to cleaning products for such a recommended certification.

The California South Coast Air Quality Management District (SCAQMD) does not set VOC limits for products. They have to comply with the limits established by CARB for consumer products which are the same for NYS.

**Frequently Asked Public Comment:****VOC Levels (Volatile Organic Compound Levels)**

--The guidelines should not permit VOC levels exceeding 1% by weight.

Volatile organic compounds – complex mixtures of chemicals which are released into the air when the product is used – present health challenges for sensitive populations similar to those posed by fragrances.

Once again, we point out that industry has already responded to consumer demand for low-VOC products with new products and reformulations which reduce the potential health hazard to minimal levels. (Some new products are achieving a VOC level of 0.05% or less.) There is no justification for permitting

the use of high-VOC products in school classrooms.

As this is a rapidly developing area for product formulators and manufacturers, we strongly urge the OGS to review this specification within two years to see if the wider availability of products meeting a VOC standard of <0.05% would permit its inclusion in these guidelines.

In the interim, we recommend that within Section II “Characteristics of Green Cleaning Products,” a new subparagraph 14 be added as follows:

*The product shall have a VOC level of 1% or less.*

(Patricia J. Wood, Executive Director, Grassroots Environmental Education, Port Washington, New York)

--(A) General comment is to include an option for cleaning products to be certified by either Greenguard Environmental Institute for low volatile organic compound (VOC) emissions and allergen removal or Green Seal for product content. (B) Section II – Characteristics of Green Cleaning Products – Add number 14. Cleaning products should contribute minimal levels of VOCs into the indoor air and meet current emission standards for VOCs, formaldehyde, respirable particles, phthalates, and other hazardous chemicals. (C) Section II - Separate out IAQ into a stand-alone bullet so that it is dedicated to the subject and not included with outdoor air quality benchmarks. By doing this, specific information on chemical product emissions and cleaning efficiency for health can be inserted.

(Ben Taube, Public Affairs Manager, Greenguard Environmental Institute)

--Must not contain volatile organic compounds (VOC) at levels exceeding the limits established by the Southern California Air Quality Management District Resources Board for the applicable product categories. Products must not be listed on the hazardous air pollutants list of the Environmental Protection Agency (Apply to Tier I Products).

(Deirdre Imus, Founder and President, The Deirdre Imus Environmental Center for Pediatric Oncology, Hackensack University Medical Center, The David Joseph Jurist Research Center For Tomorrows Children, Hackensack, NJ 07601)

--I am writing urge that the new standards for school cleaning products contain the following recommendations: no non-functional fragrances, no endocrine disrupters, and VOC of 1% or lower, to be reviewed in 2 years as lower VOC products become available on the market. I worked with the Scarsdale Union Free School District to help them develop guidelines for the products used to clean the schools. We have been successful with products that meet the standards I suggest. Fragrances and VOC emissions from cleaning products can affect asthma and allergies in sensitive individuals and endocrine disrupters can cause serious hormone problems, especially in young people. Please think of the children, not the chemical industry, when you adopt your regulations. (Deborah Porder, Scarsdale, NY)

--I would just like to voice my opinions on cleaning supply alternatives in schools. I also agree with prohibiting VOC levels exceeding 1% by weight from being used for school cleaning. (Alexandra Markiewicz, Vanderbilt University, Lives in Manlius, NY)

--I am writing to show my support for using greener cleaning products in our schools. I believe that prohibiting endocrine disrupting chemicals and volatile organic compounds from being used by schools for cleaning should be a no brainer. These are kids we are talking about, and every effort should be made to keep harmful chemicals away from them.

(Dorothy Kraebel, Cato, NY)

--The guidelines should not permit VOC levels exceeding 1% by weight. Volatile organic compounds – complex mixtures of chemicals which are released into the air when the product is used – present health challenges for sensitive populations similar to those posed by fragrances. Once again, it has been pointed out that industry has already responded to consumer demand for low-VOC products with new products and reformulations which reduce the potential health hazard to minimal levels. (Some new products are

achieving a VOC level of 0.05% or less.) There is no justification for permitting the use of high-VOC products in school classrooms. As this is a rapidly developing area for product formulators and manufacturers, we strongly urge the OGS to review this specification within two years to see if the wider availability of products meeting a VOC standard of <0.05% would permit its inclusion in these guidelines. In the interim, I am recommending that within Section II "Characteristics of Green Cleaning Products," a new subparagraph 14 be added as follows: 14. The product shall have a VOC level of 1% or less. (Dr. Daniel Lefkowitz, Yorktown Heights, NY)

--It has come to my attention that cleaning products in many of our schools need to be improved for a safer environment in the future for our children. I fully support the implementation of green cleaning products due to the fact that many of the cleaning products used contain endocrine disrupting chemicals linked to reproductive disorders and cancer related illnesses. I support the prohibition of chemicals such as diethyl phthalate also the use of volatile organic compounds exceeding 1% for other health related reasons. Why should our children who are in critical stages of development be subject to chemicals linked to these effects when we have access to safer, organic alternatives? I urge you to stand behind the implementation of safer cleaning supplies in our schools, as I plan to use in my home.  
(Sarah Reding, Auburn, NY)

--For specifications regarding Characteristics Of Green Cleaning Products, (Section II of the proposal), we urge that the following additional criteria be added\*:

The product shall be free of, or are low in, Volatile Organic Compounds (VOC's). VOC content should be limited to no more than 1%.

\* See Healthy Schools Network's Guide to Healthier Cleaning and Maintenance: Practices and Policies for Schools, page 5.

(Stephen J. Boese, New York State Director, Healthy Schools Network, American Academy of Pediatrics, Dist. II, American Lung Association of NYC, American Lung Association of NYS, The Association of New York City Education Councils, Campaign for Healthy Children, Citizens Environmental Coalition, Citizens For A Clean Environment, Community Health and Environment Coalition, Environmental Advocates of NY, For a Better Bronx, Grassroots Environmental Education, INFORM, Inc., Learning Disabilities Association of NYS, Learning Disabilities Association WNY, National Resources Defense Council, NEA of New York, New York Committee for Occupational Health and Safety, Toxic Waste Lupus Coalition, WEACTION for Environmental Justice, Wellness in the Schools Inc., Jacquelyn Kamin, Community Affairs Director of Opportunity Charter School, Philip J. Landrigan, MD, MSc, Professor and Chairman of Department of Community & Preventive Medicine Mount Sinai School of Medicine, Connecticut Foundation for Environmentally Safe Schools, Health Schools Campaign, Chicago IL, Healthy Children Organizing Project, San Francisco, Ca., and NEA Healthy Schools Caucus)

--I would like to know the VOC regulations for NY State pertaining to Industrial solvent cleaning. (Jake Jacob, U.S. Polychemical Corp., Chestnut Ridge, NY)

--Green Seal VOC Limits (p. 10) - The Green Seal standard GS-37 which is being incorporated by New York for Industrial Household Cleaners includes VOC limits which are not consistent with VOC limits developed by the California Air Resources Board (CARB) and which have been adopted in New York (e.g. 6 NYCRR 235) and other states in the Ozone Transport Commission (OTC). The CARB limits are recognized as being standards which balance air quality concerns and commercial and technologically feasibility. It is for this reason they have been "endorsed" by New York's Department of Environmental Conservation (NYDEC). We urge OGS to appropriately conform its VOC standards to those of NYDEC. (F. H. Brewer, Director, Worldwide Government Relations, S.C. Johnson & Son, Inc. Racine, WI)

--Many health care facilities. North America wide have scent free policies. My very first comment is why allow cleaning products that have added scents? There is no cleaning benefit to a perfume and we all know

that perfumes add airborne contaminants. The contamination of indoor air from all sources should be reduced to the lowest possible level.

Children and other individuals with chemical hypersensitivity are affected by airborne contaminants at much lower concentrations than the average populations. The Green Seal mode! provides No More Protection from airborne contaminants from cleaning products that what is already legislated in many states. That is just not satisfactory when look at the needs of children. I recommend not allowing the addition of perfumes and reducing the VOC level in general purpose cleaners, bathroom cleaners, floor cleaners and in all products used for daily cleaning. The limit of 0.05% in cleaning concentrates before dilution. It is important to restrict the VOC's in the concentrate, as the containers will emit VOC's continually once they have been opened, even if dispensed through a dispenser.

(Michael Rochon, Cogent Environmental Solutions, Caledon, ON, L0N 1C0)